

CLAIMS

We claim:

1. A method for collecting reports of at least one parameter comprising the following steps:

5 automatically receiving from any of a plurality of senders, via a transmission channel, an electronic representation of an image of a physical form, the form having a plurality of data fields, each corresponding to an indicator of at least a partial value of at least one of the parameters;

10 automatically identifying the location of the data fields in the received representation of the image of the form;

automatically extracting from the identified data fields the at least partial values of the corresponding parameters; and

automatically storing the extracted values in a predetermined format in a memory for subsequent processing.

2. A method as in claim 1, in which the electronic representation of the image of the physical form is generated using a conventional facsimile machine, whereby the transmission channel is a standard telephone line.

3. A method as in claim 2, further including the step of transferring the stored extracted values to an external recipient via a network, all processing of the physical form after transmission by the sender up to and including transfer to the external recipient via the network thereby taking place automatically.

4. A method as in claim 1, in which each data field indicates a quantifiable or itemizable value of a corresponding one of the parameters, further including the additional step of storing the received electronic representation of the image of the physical form in the memory, whereby non-quantifiable and non-itemizable entries by the user onto the physical form are made available for subsequent review.

5. A method as in claim 1, further including the step of storing recipient-entered annotations in the memory along with the stored extracted values of the respective received form.

6. A method as in claim 1, further comprising:
associating at least two different physical forms with different senders; and
automatically determining the identity of each sender based on the received image of the physical form.

7. A method as in claim 6, further comprising:
storing an electronic representation of a template of each included physical form;
and
automatically identifying received forms by performing a best-fit comparison of
5 each received electronic representation of the image of one of the physical forms with
the stored electronic representations of the templates.

8. A method as in claim 1, in which the step of automatically identifying the location of the data fields comprises the following sub-steps:
storing an electronic representation of a template of each of a plurality of physical forms;
5 automatically identifying each received form by performing a best-fit comparison of each received electronic representation of the image of the corresponding physical form with the stored electronic representations of the templates;
automatically registering the received electronic representation of the received physical form image with the best-fit electronic template representation; and
10 matching the data fields in the received electronic representation of the received physical form image with corresponding data fields in the best-fit electronic template representation.

9. A method as in claim 1, in which:

the electronic representation of the image of the physical form is generated using a conventional facsimile machine;

the transmission channel is a standard telephone line

at least one of the parameters is time; and

the physical form is a time sheet.

10. A method for collecting reports of at least one parameter comprising the following steps:

automatically receiving from any of a plurality of senders, via a transmission channel, an electronic representation of an image of a physical form, the form having a plurality of data fields, each corresponding to an indicator of at least a partial value of at least one of the parameters;

automatically identifying the location of the data fields in the received representation of the image of the form;

automatically extracting from the identified data fields the at least partial values of the corresponding parameters; and

automatically storing the extracted values in a predetermined format in a memory for subsequent processing; and

transferring the stored extracted values to an external recipient via a network, all processing of the physical form after transmission by the sender up to and including transfer to the external recipient via the network thereby taking place automatically;

in which:

the electronic representation of the image of the physical form is generated using a conventional facsimile machine, whereby the transmission channel is a standard telephone line;

each data field indicates a quantifiable or itemizable value of a corresponding one of the parameters, further including the additional step of storing the received electronic representation of the image of the physical form in the memory, whereby non-quantifiable and non-itemizable entries by the user onto the physical form are made available for subsequent review;

25 the step of automatically identifying the location of the data fields comprises the following sub-steps:

storing an electronic representation of a template of each of a plurality of physical forms;

30 automatically identifying each received form by performing a best-fit comparison of each received electronic representation of the image of the corresponding physical form with the stored electronic representations of the templates;

automatically registering the received electronic representation of the received physical form image with the best-fit electronic template representation; and

35 matching the data fields in the received electronic representation of the received physical form image with corresponding data fields in the best-fit electronic template representation.

11. A system for collecting reports of at least one parameter comprising: a central server that includes:

I/O means for automatically receiving from any of a plurality of senders, via a transmission channel, an electronic representation of an image of a physical form, the
5 form having a plurality of data fields, each corresponding to an indicator of at least a partial value of at least one of the parameters;

form processing means:

for automatically identifying the location of the data fields in the received representation of the image of the form;

10 for automatically extracting from the identified data fields the at least partial values of the corresponding parameters; and

automatically storing the extracted values in a predetermined format in a memory for subsequent processing.

12. A system as in claim 11, further comprising:
a facsimile machine forming means for converting the physical form into the
electronic representation and for sending the electronic representation of the image of
the physical form to the central server is generated using a conventional facsimile
5 machine;
in which the transmission channel is a standard telephone line.

13. A system as in claim 11, in which the form processing means includes
annotation means for receiving and storing recipient-entered annotations in the memory
along with the stored extracted values of the respective received form.

FOOTNOTES